

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

- 1 1. (Original) In a telescopic gunsight having an optical system comprised of a forward objective lens element, a rear eyepiece lens element and intervening erector lens element, said elements being aligned upon an optical axis constituting a line of sight and protectively confined within an elongated tubular housing adapted to be securely affixed to a rifle, the improvement comprising the addition into said optical system between said objective and erector lens elements of a transparent reticle having distance-measuring and aiming indicia, said indicia comprising orthogonally intersecting center vertical and center horizontal straight hairlines, said center vertical and center horizontal hairlines having radially distal portions which are widened so as to form posts having radially directed innermost and outermost extremities, and four straight horizontal range-marker hairlines of sequentially incremental length disposed below said center horizontal hairline in vertically bisected relationship with said center vertical hairline.

**ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT**

1 2. (Original) The telescopic gunsight of claim 1 wherein the intersection of said center vertical
2 and center horizontal hairlines constitutes a center point which defines a bullet impact point at 100
3 and 200 yards.

1 3. (Original) The telescopic gunsight of claim 2 wherein the sites of intersection of said first,
2 second, third and fourth range-marker hairlines with said vertical hairline constitute first, second,
3 third and fourth alternative bullet impact points, respectively, at ranges of 300, 400, 500 and 600
4 yards, respectively.

1 4. (Original) The telescopic gunsight of claim 1 wherein the innermost extremities of said posts
2 are disposed upon a circular locus about said center point.

1 5. (Original) The telescopic gunsight of claim 1 wherein the dimension of the various features
2 of said reticle correspond to inches of subtention at 100 yards.

1 6. (Original) The telescopic gunsight of claim 5 wherein the width of the unwidened portions
2 of said center vertical and center horizontal hairlines is 0.6 inches.

**ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT**

1 7. (Original) The telescopic gunsight of claim 5 wherein the distance between said center point
2 and the innermost extremities of said posts is 25 inches.

1 8. (Original) The telescopic gunsight of claim 5 wherein the distances of separation of said
2 range marker lines from said center point are such as to cause the sequential spacing between said
3 range marker lines to progressively increase.

1 9. (Original) The telescopic gunsight of claim 5 wherein the distances of separation of said
2 first, second, third and fourth range marker lines from said center point are 2.0, 4.8, 7.5 and 10.5
3 inches, respectively.

1 10. (Original) The telescopic gunsight of claim 5 wherein the lengths of said first, second, third
2 and fourth range marker lines are 4.12, 5.90, 8.32 and 9.72 inches, respectively.

Please add the following new claims:

1 11. (Newly Added) A telescopic gunsight optical system comprising:
2 a plurality of lens elements aligned along a line of sight; and
3 a transparent reticle having distance-measuring and aiming indicia disposed between two of
4 said plurality of lens elements, said distance-measuring and aiming indicia including:
5 orthogonally intersecting center vertical and center horizontal straight hairlines
6 having radially distal portions that are widened to form posts with radially directed innermost
7 and outermost extremities; and
8 four range-marker indicia disposed below said center horizontal hairline, wherein at
9 least two of said range-marker indicia are formed by straight horizontal hairlines of
10 sequentially incremental length disposed in vertically bisected relationship with said center
11 vertical hairline.

1 12. (Newly Added) The telescopic gunsight optical system according to claim 11, wherein three
2 of said range-marker indicia are formed by straight horizontal hairlines of sequentially incremental
3 length disposed in vertically bisected relationship with said center vertical hairline.

ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT

1 13. (Newly Added) The telescopic gunsight optical system according to claim 11, wherein each
2 of said at least two range-marker indicia formed by straight horizontal hairlines have a length
3 corresponding to adjustment for a predetermined cross-wind at a corresponding range.

1 14. (Newly Added) The telescopic gunsight optical system according to claim 11, wherein an
2 intersection of said center vertical and center horizontal hairlines and said range-marker indicia each
3 correspond to spacing of a bullet trajectory from said line of sight at predetermined ranges.

1 15. (Newly Added) The telescopic gunsight optical system according to claim 14, wherein said
2 intersection of said center vertical and center horizontal hairlines and said range-marker indicia
3 provide a range estimation mechanism.

1 16. (Newly Added) The telescopic gunsight optical system according to claim 11, wherein said
2 plurality of lens elements include a forward objective lens element, a rear eyepiece lens element and
3 an intervening erector lens element, wherein the reticle is disposed between said forward objective
4 and erector lens elements, the telescopic gunsight optical system further comprising:
5 an elongate tubular housing adapted to be securely affixed to a rifle and protectively
6 confining said plurality of lens elements and said reticle.

ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT

- 1 17. (Newly Added) A telescopic gunsight optical system comprising:
2 a transparent reticle having distance-measuring and aiming indicia including:
3 intersecting center vertical and center horizontal hairlines having widened radially
4 distal portions; and
5 three or more range-marker indicia disposed below said center horizontal hairline,
6 wherein at least two of said range-marker indicia are formed by horizontal hairlines of
7 differing lengths disposed in vertically bisected relationship with said center vertical hairline.
- 1 18. (Newly Added) The telescopic gunsight optical system according to claim 17, wherein an
2 intersection of said center vertical and center horizontal hairlines and said range-marker indicia each
3 correspond to spacing of a bullet trajectory from a line of sight at predetermined ranges, and wherein
4 said intersection of said center vertical and center horizontal hairlines and said range-marker indicia
5 further provide a range estimation mechanism.
- 1 19. (Newly Added) The telescopic gunsight optical system according to claim 18, wherein one
2 or more of said at least two range-marker indicia formed by straight horizontal hairlines have a
3 length corresponding to adjustment for a predetermined cross-wind at a corresponding range.

ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT

1 20. (Newly Added) The telescopic gunsight including the telescopic gunsight optical system
2 according to claim 19, the telescopic gunsight further comprising:
3 a forward objective lens element;
4 a rear eyepiece lens element;
5 an erector lens element disposed between the forward objective and rear eyepiece lens
6 elements, wherein forward objective, rear eyepiece and erector lens elements and said reticle are
7 aligned along said line of sight with said reticle disposed between said forward objective and erector
8 lens elements; and
9 an elongate tubular housing adapted to be securely affixed to a rifle and protectively
10 confining said forward objective, rear eyepiece, and erector lens elements and said reticle.

1 21. (Newly Added) A telescopic gunsight optical system comprising:
2 a transparent reticle having distance-measuring and aiming indicia including:
3 intersecting center vertical and center horizontal hairlines having widened radially
4 distal portions; and
5 two or more range-marker indicia disposed below said center horizontal hairline,
6 wherein at least one of said range-marker indicia is formed by a horizontal hairline of a
7 length corresponding to adjustment for a predetermined cross-wind at a corresponding range
8 and disposed in vertically bisected relationship with said center vertical hairline.

1 22. (Newly Added) A telescopic gunsight optical system comprising:
2 a transparent reticle having distance-measuring and aiming indicia including:
3 intersecting center vertical and center horizontal hairlines having widened radially
4 distal portions; and
5 two or more range-marker indicia disposed below said center horizontal hairline,
6 wherein each of said range-marker indicia correspond to spacing of a bullet trajectory from
7 a line of sight at differing, predetermined ranges, and wherein said range-marker indicia,
8 together with at least one other feature of markings on said reticle, further provide a range
9 estimation mechanism.

**ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT**

1 23. (Newly Added) A reticle of an optical system, said reticle comprising (i) intersecting
2 hairlines and (ii) a plurality of range-marker indicia corresponding to a trajectory from a line of sight
3 at differing ranges and providing a range estimation mechanism.

1 24. (Newly Added) The reticle as set forth in claim 23, wherein at least two of said plurality of
2 range-marker indicia are lines of sequentially incremental length.

1 25. (Newly Added) The reticle as set forth in Claim 23, wherein said at least two lines intersect
2 with a center vertical hairline.

1 26. (Newly Added) The reticle as set forth in Claim 25 wherein said intersection of said at least
2 two lines and said center vertical hairline is perpendicular.

1 27. (Newly Added) An optical system comprising a reticle having (i) intersecting hairlines and
2 (ii) a plurality of range-marker indicia disposed below a horizontal hairline, said plurality of range-
3 marker indicia corresponding to a trajectory from a line of sight at differing ranges, and providing
4 a range estimation mechanism.

**ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT**

- 1 28. (Newly Added) The optical system set forth in claim 27 further comprising:
 - 2 a housing for containing said optical system, said housing adapted to be affixed to a gun.
- 1 29. (Newly Added) The optical system as set forth in claim 27, wherein at least two of said plurality of range-marker indicia are lines of sequentially incremental length.
- 1 30. (Newly Added) The optical system as set forth in claim 29, wherein said at least two lines intersect with a center vertical hairline.
- 1 31. (Newly Added) The optical system as set forth in Claim 30, wherein said intersection of said at least two lines and said center vertical hairline is perpendicular.

1 32. (Newly Added) A gun comprising:
2 a firing mechanism;
3 a barrel; and
4 an optical system comprising (i) a housing and (ii) a reticle disposed within said housing, said
5 reticle comprising:
6 intersecting hairlines, and
7 a plurality of range-marker indicia disposed below a horizontal hairline, said plurality
8 of range-marker indicia corresponding to a trajectory from a line of sight at differing ranges,
9 and providing a range estimation mechanism.

1 33. (Newly Added) The gun set forth in Claim 32, wherein said housing is adapted to be affixed
2 to said gun.

1 34. (Newly Added) The gun set forth in Claim 32, wherein said gun is a rifle.

1 35. (Newly Added) The gun set forth in Claim 32, wherein at least two of said plurality of
2 range-marker indicia are lines of sequentially incremental length.

**ATTORNEY DOCKET NO. SMIT26-00008
U.S. PATENT NO. 6,357,158
REISSUE PATENT**

1 36. (Newly Added) The gun as set forth in Claim 35, wherein said at least two lines intersect
2 with a center vertical hairline.

1 37. (Newly Added) The gun as set forth in Claim Z5 wherein said intersection of said at least
2 two lines and said center vertical hairline is perpendicular.